PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 642

04/02



DEFINITION

A Well for conservation purposes is constructed or improved to provide water for irrigation, livestock, wildlife, or recreation.

PRACTICE INFORMATION

The purpose (s) of the practice is to facilitate proper use of vegetation, and provide water

for livestock, wildlife, recreation, and crop production.

The practice applies to drilled, driven, and dug vertical or horizontal wells constructed to supply water from an underground source.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

STATE	FIELD OFFICE	DATE
PRACTICE: 642 Well		NOTES:
RESOURCE: SOIL		
RESOURCE CONCERN:	EROSION	
RESOURCE INDICATORS		PHYSICAL EFFECTS
SHEET AND RILL		moderate reduction in sheet and rill erosion
WIND		moderate reduction in wind erosion
EPHEMERAL GULLY		situational concerning ephemeral gullies
CLASSIC GULLY		situational concerning classic gullies
STREAMBANK		N/A
IRRIGATION INDUCED		N/A
SOIL MASS MOVEMENT		N/A
ROADBANK/CONSTRUCTION		N/A
OTHER		
RESOURCE CONCERN: \$	SOIL CONDITION	N
SOIL TILTH		N/A
SOIL COMPACTION		N/A
SOIL CONTAMINATION		
• SALTS		N/A
• ORGANICS		N/A
FERTILIZERS		N/A
PESTICIDES		N/A
• OTHER		
DEPOSITION/DAMAGE		
• ONSITE		N/A
OFFSITE		N/A
DEPOSITION/SAFETY		
ONSITE		N/A
• OFFSITE		N/A
OTHER		
RESOURCE: WATER		<u>'</u>
RESOURCE CONCERN: \	WATER OUANTI	TY
SEEPS	······································	insignificant
RUNOFF/FLOODING		N/A
EXCESS SUBSURFACE WATER		slight increase in excess subsurface water
INADEQUATE OUTLETS		N/A
WATER MGT. IRRIGATION		
SURFACE		significant improvement in irrigation efficiency
• SPRINKLER		significant improvement in irrigation efficiency
WATER MGT. NON-IRRIGATED		N/A
RESTRICTED FLOW CAR		
ONSITE		N/A
• OFFSITE		N/A
RESTRICTED STORAGE		sign. reduction in sedimentation of H20 storage
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RESOURCE: WATER				
RESOURCE CONCERN: WATER QUALITY				
RESOURCE INDICATORS	PHYSICAL EFFECTS			
GROUNDWATER CONTAMINANTS				
• PESTICIDES	slight potential increase/GWater contam./pesticide			
 NUTRIENTS AND ORGANICS 	slight poten. increase in GWater contam./nutr,org.			
• SALINITY	slight poten. increase/GWater contam./salinity			
HEAVY METALS	N/A			
• PATHOGENS	slight poten. increase/GWater contam./pathegens			
• OTHER				
SURFACE WATER CONTAMINANTS				
• PESTICIDES	insignificant			
 NUTRIENTS AND ORGANICS 	insignificant			
SUSPENDED SEDIMENTS	moderate reduction in SWater contam./susp. sedi.			
LOW DISSOLVED OXYGEN	N/A			
• SALINITY	insignificant			
HEAVY METALS	insignificant			
WATER TEMPERATURE	insignificant			
• PATHOGENS	insignificant			
AQUATIC HABITAT SUITABILITY	moderate inprovement in Aqua. Hab. Suit.			
OTHER				
RESOURCE: AIR				
RESOURCE CONCERN: AIR QUALI	TY			
AIRBORNE SEDIMENT AND SMOKE				
PARTICLES				
ONSITE SAFETY	slight decrease in airborn sed.&smoke/safety			
OFFSITE SAFETY	slight decrease in airborn sed.&smoke part./safety			
ONSITE STRUCT. PROBLEMS	slight decrease in struc. problems/dust and smoke			
OFFSITE STRUCT. PROBLEMS	slight decrease in struc. problems/dust&smoke			
ONSITE HEALTH	slight decrease in onsite health/dust and smoke			
OFFSITE HEALTH	slight improvement in offsite health			
AIRBORNE SEDIMENT CAUSING	slight decrease in airborn sediment/convey. prob.			
CONVEYANCE PROBLEMS				
AIRBORNE CHEMICAL DRIFT	N/A			
AIRBORNE ODORS	N/A			
FUNGI, MOLDS, AND POLLEN	N/A			
OTHER				
RESOURCE CONCERN: AIR CONDITION				
AIR TEMPERATURE	slight improvement in air condition/temperature			
AIR MOVEMENT (windbreak effect)	N/A			
HUMIDITY	situational regarding humidity			
OTHER				

RESOURCE: PLANT			
RESOURCE CONCERN: SUITABILIT	Y		
RESOURCE INDICATORS	PHYSICAL EFFECTS		
SITE ADAPTATION	sign. improvement in plant suitability/site adapt		
PLANT USE	sign. improvement in plant suit. for intended use		
OTHER			
RESOURCE CONCERN: CONDITION			
PRODUCTIVITY	sign. improvement in plant cond./ productivity		
HEALTH, VIGOR, SURVIVAL	sign. improvement in plant health, vigor, survival		
OTHER			
RESOURCE CONCERN: MANAGEME	ENT		
ESTAB., GROWTH, HARVEST	sign. improvement in plant estab.,growth,harvest		
NUTRIENT MANAGEMENT	N/A		
PESTS	sign. improvement in plant pest management		
THREAT/ENDANGERED PLANTS	N/A		
OTHER			
RESOURCE: ANIMAL			
RESOURCE CONCERN: HABITAT			
FOOD	moder. improvement in animal habitat/food supply		
COVER/SHELTER	moder. improvement in animal habitat/cover,shelter		
WATER (QUANTITY & QUALITY)	N/A		
OTHER			
RESOURCE CONCERN: MANAGEME	ENT		
POPULATION BALANCE	insignificant		
THREAT/ENDANGERED ANIMALS	N/A		
HEALTH	moder. improvement in animal mgt./ health		
OTHER			
RESOURCE: HUMAN			
RESOURCE CONCERNS: ECONOMIC	C CONSIDERATIONS		
PLAN / COST EFFECTIVENESS	significantly cost effective		
CLIENT FINANCIAL CONDITION	significantly cost effective		
MARKETS FOR PRODUCTS	N/A		
AVAILABLE LABOR	sign. increase in labor requirement		
AVAILABLE EQUIPMENT	situational regarding equipment concerns		

RESOURCE: HUMAN		
RESOURCE CONCERN: SOCIAL CONSIDERATIONS		
RESOURCE INDICATORS	PHYSICAL EFFECTS	
PUBLIC HEALTH AND SAFETY	situational concerning public health and safety	
PRIVATE/PUBLIC VALUES	mod. inprovement in private/public values	
CLIENT CHARACTERISTICS	N/A	
RISK TOLERANCE	insignificant risk involved	
TENURE	N/A	
OTHER		
RESOURCE CONCERN: CULTURAL (CONSIDERATIONS	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources	
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources	
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources	
OTHER		